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ABSTRACT

This report describes some outcomes of the Texas initiative to restructure teacher preparation according to a field-based model, discussing its processes, problems, and challenges and suggesting that the resulting improvements in teacher education are well worth the additional effort and expense. Section 1, Introduction, presents an overview of field-based teacher preparation in Texas. Section 2, Rationale for Field-Based Teacher Education, discusses the influence of the accountability movement and the benefits to public schools. Section 3, Three Texas Field-Based Programs, focuses on three efforts: a large, fully field-based program; a program with geographically dispersed field sites; and a program with special schools as operational field sites. Section 4, Essentials for Success in Implementing Field-Based Teacher Education, discusses collaboration with schools; options and responsibilities for classroom space in the field; program leadership, organization, and governance; roles of major participants; technology in field-based education; and staff development in field-based programs. Section 5, Barriers to Field-Based Education, discusses barriers encountered in Texas programs and bridges they used to overcome the problems. Section 6, Assessment in Field-Based Programs, looks at assessment of and research on the initiative. (Contains 15 references.) (SM)

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Restructuring Texas Teacher Education Series **1**

Field-Based Teacher Education

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Texas State Board for Educator Certification

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CENTERS FOR PROFESSIONAL DEVELOPMENT OF TEACHERS

In 1991 the Texas Legislature passed legislation and authorized funding for the Centers for Professional Development of Teachers (CPDTs; originally called Centers for Professional Development and Technology). The CPDTs are designed to support collaboration among public schools, universities, regional education service centers, and other organizations to improve teacher preparation and professional development.

The purpose of the CPDTs is to totally restructure teacher education on the basis of six principles and goals:

- To restructure teacher preparation programs toward performance-centered, field-based models
- To institutionalize the new programs to include all prospective teachers for the long term, not just pilot groups for a short period
- To integrate technology into teacher preparation and to support its enhanced use in PreK–12 schools
- To prepare teachers to address the needs of culturally diverse student populations
- To extend collaboration among universities, schools, and others concerned with teacher preparation
- To establish staff development opportunities that better address the needs of all educators

In 1992 the state funded the first 8 CPDTs. By 1993 the number had increased to 14, and by 1997, to 30. The CPDTs now comprise 43 universities, 15 regional education service centers, and 113 school districts, affecting more than 300,000 students, 19,000 teachers, and 12,000 preservice teachers. The names and the locations of the CPDT universities appear on the inside back cover of this publication. The commitment by the state legislature has been significant, as indicated by the $46 million that it has provided to date.

ABOUT THIS SERIES

This series of seven reports on restructuring teacher education in Texas was produced by representatives of seven CPDT institutions that received 1997–98 grants for Partnerships for Professional Development of Teachers. The series draws on experiences of all the CPDTs, including both successes and challenges.

The seven reports are as follows:

- Field-Based Teacher Education
- Professional Development Schools
- Connecting to Improve Methods Courses
- Assessment
- Distance Learning
- Cultural Pluralism
- Technology

Field-Based Teacher Education

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INTRODUCTION

A major commitment of teacher education restructuring in Texas is field-based preparation. Broadening the locus of preparation to include the workplace (schools) results in more than an additional site for learning; it changes instructional processes and content, organizational and power balances, and program accountability. Field-based programs provide a reality check for ideas during preparation and model instruction that teachers can use during their initial, formative years of teaching. This report describes some outcomes of field-based teacher preparation as well as its processes, problems, and challenges. The report demonstrates that the resulting improvements in teacher education are well worth the additional effort and expense.

In the Texas Centers for Professional Development of Teachers (CPDTs), "field-based teacher preparation" is the collaborative preparation of teachers by universities and public schools. Design and implementation of programs occur in a partnership, and the delivery of substantial parts of professional education is in the field. Real-life experiences with public school students, teachers, and school personnel are integrated into each education course, and prospective teachers spend much of their time in PreK–12 schools. University faculty teach education courses in public school classrooms, and they form teams with mentor teachers to prepare future educators. In this arrangement, university students immediately see the relationship between theory and practice.

The Texas Higher Education Coordinating Board has described a field-based teacher education program as one in which a significant amount of the training occurs in public schools. Glenda Barron (1992) of the coordinating board has identified the following criteria for field-based courses:

1. The field activity required in a course makes a substantial difference in the course outcomes. That is, the university student gains different skills and knowledge from being in the field than he or she would learn in a campus-based course.
2. Student activities and requirements are related to actual work in the schools as opposed to their simply taking place on a public school campus.

3. The course involves the university student in completing "real tasks of a teacher" as opposed to simply observing the teacher at work.
4. The course evaluation reflects the importance of the field activities. That is, the value assigned to successful field experiences has a significant influence on the final grade for the course.
5. There is regular, continuing interaction among university students, public school teachers, university professors, and public school students. That is, the university professor must have a regular interactive role in the public school setting.

As part of the restructuring movement in Texas, in 1995 the legislature established an independent governing board for teacher education and licensure, the State Board for Educator Certification. Before that time the State Board of Education was responsible for teacher education and licensure as well as for PreK–12 education. In 1995, still exercising that responsibility, the State Board of Education formulated a philosophy of education (*Learner-Centered Schools for Texas: A Vision of Texas Educators*) that includes five Proficiencies for Teachers in Learner-Centered Schools. These proficiencies, listed in Exhibit 1, have played a major role in defining field-based teacher education in Texas.

"There are various routes to teacher licensure in Texas. However, each of them, including the newly restructured programs, requires licensed teachers to have a broad general education, an academic specialization, and professional teacher education."

There are various routes to teacher licensure in Texas. However, each of them, including the newly restructured programs, requires licensed teachers to have a broad general education, an academic specialization, and professional teacher education. It is the latter that has become primarily field based and is described in this report. In 1987 the Texas Legislature limited the professional education component to no more than 18 semester hours. However, universities may extend this to 24 hours to accommodate additional field experiences in restructured programs. Within these 18 to 24 hours, the programs include educational philosophy, educational foundations, curriculum, instruction, assessment, clinical experiences, student teaching, and other pedagogical learning experiences. Programs typically require educational psychology, instructional technology, and multicultural education in addition to these 24 semester hours.

Considerable diversity characterizes field experiences. Although typically the 24-hour professional education component is based in schools, other aspects of the program also may be located in the field. These include courses in multicultural education and early childhood

Exhibit 1
Proficiencies for Teachers in Learner-Centered Schools

I. Learner-Centered Knowledge

The teacher possesses and draws on a rich knowledge base of content, pedagogy, and technology to provide relevant and meaningful learning experiences for all students.

II. Learner-Centered Instruction

To create a learner-centered community, the teacher collaboratively identifies needs; and plans, implements, and assesses instruction using technology and other resources.

III. Equity in Excellence for All Learners

The teacher responds appropriately to diverse groups of learners.

IV. Learner-Centered Communication

While acting as an advocate for all students and the school, the teacher demonstrates effective professional and interpersonal communication skills.

V. Learner-Centered Professional Development

The teacher, as a reflective practitioner dedicated to all students' success, demonstrates a commitment to learn, to improve the profession, and to maintain professional ethics and personal integrity.

Note. From *Learner-Centered Schools for Texas: A Vision of Texas Educators* (pp. 3–7), by State Board of Education, 1995, Austin: Texas Education Agency.

education and some content courses—for example, English and mathematics. Some professional education courses continue to be taught on the university campus for special reasons. For example, instructional technology is taught there in order to have a sufficient number of computers available.

Field-based programs are typically organized around professional development schools (PDSs). The Texas-based Sid W. Richardson Foundation Forum (1992) describes PDSs as schools in which professors, teachers, administrators, and prospective teachers work together to build a collegial learning community. The PDS community has as its primary goal the intellectual engagement and development of all its members—students, teachers, administrators, professors, and future educators. In the PDS model, university students work with teachers to learn about public school education, in much the same way that interns work with physicians to learn about medicine.

Exhibit 2
A Comparison of Traditional and Field-Based Programs

Traditional Program	Field-Based Program
Students learn about teaching.	Students learn to teach by teaching.
Courses are taught on university campuses.	Courses are taught in public school settings.
University is solely responsible for program.	University and public school partners share responsibility for program.
Beginning teachers are well grounded in educational theory.	Beginning teachers understand relationship between theory and practice.
Cooperation with practitioners is limited.	Program is designed and delivered in collaboration with practitioners.
Field experiences are limited to observation and student teaching.	Field experiences are integral parts of all education courses.
There is occasional staff development for school participants.	There is continuing staff development for all partners, including university faculty.
Assessment of students is traditional.	Students' readiness to teach is demonstrated through performance-based or authentic assessment.
Graduates have limited knowledge of full range of teacher's responsibilities.	Graduates are familiar with wider array of teacher's responsibilities.
Field sites are chosen for their geographic location.	Field sites are chosen for their representation of cultural diversity that mirrors community.

A unique feature of the Texas movement is the commitment of universities to base their programs primarily in the field. That is, all prospective teachers in universities that have restructured their programs are in the field-based model. Exhibit 2 contrasts several central features of traditional and field-based teacher preparation programs.

RATIONALE FOR FIELD-BASED TEACHER EDUCATION

The decision to base teacher preparation in the field is well grounded in research and best practice. For years, specialists and practitioners have assumed that earlier, more intensive, better supervised field experiences produce better teachers. Further, research suggests that PDSs have the potential not only for more effective staff development, and thus for more effective teachers, but also for more effective preparation of new teachers.

The Sid W. Richardson Foundation had a strong influence on the Texas decision to move to field-based educator preparation. A leader in school reform and in promoting collaboration, the foundation published a document called *The Professional Development School: A*

Commonsense Approach to Improving Education (Sid W. Richardson Foundation Forum, 1992). In that document, basing the professional preparation of educators in the field was considered an essential component of preparation.

Several national movements, the Holmes Group among them, also influenced the Texas decision. Further, former Texas Commissioner of Education Lionel Meno and his associate Lynda Haynes provided strong leadership for totally restructuring teacher education using a field-based model. Equally important were the deans of education, who embraced the concept of intensifying their collaboration with public schools and engaging practitioners in training teachers.

These forces joined to create a plan for restructuring programs. Universities were offered opportunities to create CPDTs. The centerpiece of these CPDTs is the improvement of teacher preparation through a variety of changes, chief among them field-based professional education courses and experiences.

Texas leaders see field-based professional education as having three major benefits:

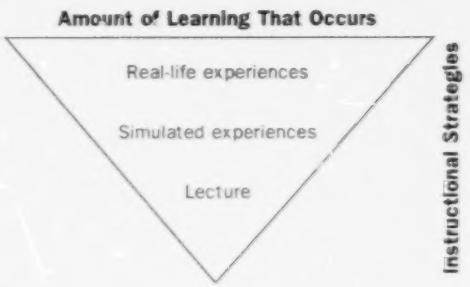
1. Students who study pedagogy that is taught in the field understand the relationships between theory and practice better.
2. The content and the methods of professors who teach their courses in public schools become more relevant to the challenges of contemporary education.
3. By providing assistance to practicing teachers, prospective teachers reduce the teacher-student ratio. Consequently student achievement improves. For example, Sandra Sherman, assistant superintendent of the Nacogdoches Independent School District, reports that students' standardized test scores have increased in every Nacogdoches school where prospective teachers are working with mentors.

"The Nacogdoches Independent School District reports that students' standardized test scores have increased in every Nacogdoches school where prospective teachers are working with mentors."

Influence of the Accountability Movement

The accountability movement has been critical in the decision to base major parts of teacher preparation in the field. In Texas, teachers and administrators are being held accountable for the achievement of their students on the state-mandated Texas Assessment of Academic Skills (TAAS). Teacher preparation institutions, in turn, are being held accountable for the effectiveness of their graduates. The state's recently adopted accountability system maintains records of the passing rates of each institution's graduates on the Examination for the Certification of Educators in Texas (ExCET), graduates' success in using effective

Exhibit 3
Relationship Between Amount of Learning and Method of Instruction



instructional strategies as judged by classroom observations during their first years of teaching, and graduates' success in increasing PreK–12 student achievement on TAAS tests. Such accountability applies not only to an institution's total group of graduates but also to subgroups by licensure area, ethnicity, and gender. Since 1996 the state has annually reported the results of ExCET scores to university administrators. In 1998 Texas will begin to classify institutions for state-approval purposes as "accredited," "accredited under review," or "not accredited." Soon after the turn of the century, it will use the results to determine institutions' eligibility to prepare teachers in various licensure areas.

As the accountability movement has promoted performance-based assessment, all educators have looked for opportunities to integrate increasing amounts of real-life experiences into their teaching. The movement in teacher education toward field-based preparation is reflected in other areas of education as well. Undergraduate programs of some universities include service learning, and many high schools require community service for graduation. Programs in anthropology, engineering, social work, and other professions increasingly include learning experiences in the workplace. In early childhood education, "project learning" is enjoying renewed use. At the high school level, many schools are adopting block scheduling so that teachers will have the time required to give students opportunities to apply the knowledge they acquire. All of these applications of authentic learning support the principle that increased learning takes place from real-life experiences. See Exhibit 3.

The diagram in Exhibit 3 suggests that the lecture method may not produce optimum learning. The diagram illustrates that, although the addition of simulated experiences to the classroom lecture may result in greater learning, the simulated experiences are not as effective as real-life ones. Educators today are making changes in response to research studies indicating that the students who perform more successfully are those who are involved in real-life experiences in their teacher preparation programs. This approach reflects the concept in the ancient Chinese proverb: "I hear and I forget/I see and I remember/I do and I am."

> ***"Researchers and educators who advocate field-based educator preparation are careful to point out that real-life experiences must be carefully planned."***

Researchers and educators who advocate field-based educator preparation are careful to point out that real-life experiences must be carefully planned. Equally important is guided reflection on the experience if the prospective teacher is to derive optimum learning from it.

Benefits to the Public School

Among the benefits that the public school realizes when it becomes a PDS in the Texas model are these:

- Enhanced professional development in collaboration with university faculty
- Increased professionalism among teachers
- An opportunity to influence the preparation of educators
- Assistance in classrooms from preservice teachers, resulting in a decreased teacher-student ratio
- Technical assistance from university faculty
- Additional technology installations and training

THREE TEXAS FIELD-BASED PROGRAMS

Although Texas universities have freedom to design their own field-based programs in CPDTs, six components are present in all CPDTs:

- Collaborative design by public school teachers and administrators and university professors and administrators
- Involvement of university students in earlier and more intensive field experiences than is the case in traditional programs
- Provision for university students to spend a minimum of one year part-time in the field, their amount of time with public school students ever increasing across the period
- Participation in staff development by all the partners
- University professors becoming integral parts of the school
- Integration of technology into instruction

Exhibit 4
Similarities and Differences Among Selected Programs

Similarities	Differences
All have experiences in field.	Time requirements for students in field vary.
All have professors in field.	Amount of time spent by professors in field varies.
All education courses include field experiences.	Courses may not be taught at each site.
	Some programs have designated classrooms in field, whereas others do not.
	Some programs have integrated courses, whereas some use traditional course titles and credit-hour arrangements.
All students have new roles and designations.	Names used to identify preservice teachers at different stages in program differ.

Three programs described in the following sections illustrate the specific elements of field-based programs. The descriptions highlight many similarities and some differences. Exhibit 4 summarizes similarities and differences in programs across the state.

A Large, Fully Field-Based Program

At one CPDT university, all prospective teachers studying for teacher licensure are in a field-based program. The program is large; the university annually recommends about 600 teachers for licensure. In 1992 education leaders at this university contacted local and area school leaders with a proposal to extend their existing cooperative relationship into a collaborative one. As a result, seven public school districts joined the university in designing a restructured teacher preparation program. Today the collaborative includes 11 PDSs across the seven districts.

The collaborators determined that field-based teacher education means a pairing of theory and practice in the educator preparation program. Therefore they planned a field-based component for every professional education course, with the amount of time that the student spends in the field increasing with each additional course. By providing a field-based program, the university personnel believe that they are offering teacher preparation that is more relevant to the real world of teaching and learning than their former program was.

Not only are the education courses taught in public schools, with preservice students working in the classrooms, but selected teachers work with university professors in designing and teaching the courses.

A university professor teaches the professional education classes for a portion of a day, then prospective teachers spend the remainder of that day serving as "interns" to public school mentor teachers. Prospective teachers tutor individual students, work with small groups needing extra help, and assist their mentors in other ways determined by the mentors. The "internship" is scheduled for two or three days per week, with the student able to take additional courses on the university campus during the remainder of the week. Although the work of university students with mentors varies from site to site and mentor to mentor, the collaborative has established priority tasks for interns to complete:

1. Shadow the mentor teacher
2. Tutor individuals
3. Teach small groups or lesson slices
4. Prepare teaching materials
5. Share the teacher's duties
6. Observe the various service functions of the school

This experience is followed by a full semester of student teaching. The arrangement gives students opportunities to see the beginning and the ending of a semester. It also allows time for a broader range of experiences in the field. In student teaching, students are clustered within schools, and university supervisors not only perform traditional supervisory roles but organize student teachers into regular seminar groupings for networking, interaction, and reflection on practice. The purpose of each of the major field experiences in the program is summarized in Exhibit 5.

At each of the PDSs, teachers carry out innovative teaching strategies in cooperation with various professors and with various forms of support and research. For example, in a middle school, social studies teachers interact via distance-learning equipment with the Texas Institute of Cultures in San Antonio (a five-hour driving distance from the school) to enrich students' studies. In a high school, a government class that was paired with a university political science class used the Internet to follow the 1996 presidential campaigns and election. At an elementary school, teachers work with university reading specialists to plan reading programs. Already their efforts have increased standardized test scores on reading achievement for the entire school population. Research associated with this project has enhanced the participating professor's publication productivity, and staff development related to the project has transmitted the results to other teachers and schools.

"At each of the PDSs, teachers carry out innovative teaching strategies in cooperation with various professors and with various forms of support and research."

Exhibit 5
Purposes of Field Experiences

Field Experience	Purpose	Experiences
"Internship" (preceding student teaching)	To immerse prospective teachers in culture of school	Tutor individuals, teach small groups, prepare instructional materials, shadow teachers, work in school service areas, participate in staff development
Student teaching	To guide prospective teachers in development of skills for teaching specific subjects	Across full semester, observe master teaching and gradually assume full teaching responsibilities

The collaborative has a continuing program of staff development in which professors and both preservice and inservice teachers participate. A collaborative team plans the focus of staff development each year. Topics have been (1) strategies for collaborating, (2) mentor teacher training, (3) integration of technology into instruction, (4) best practice relating to instruction in specific content fields, and (5) equity issues. A unique product of the Staff Development Action Team (a CPDT group) is an annual staff development program in which national consultants come to the cluster of sites and all teachers have access to their expertise. In this way, teachers who would never have the opportunity to work with national authorities can interact with them at the local level. For the past two years, the group has chosen Lorraine Monroe to work with collaborative personnel in the area of equity.

Assessment of the program has shown a greater level of confidence among graduates, a higher rate of employment, and higher scores on ExCET than in previous years.

A Program with Geographically Dispersed Field Sites

At a second university, the professional education component of teacher preparation also is largely field based. University personnel collaborated with a large number of school district partners (currently 69) in designing the program. Students participate in a yearlong program of professional education, one-third delivered at the university and two-thirds at a public school. In the first semester of the program, preservice teachers devote two days a week to their public school assignment and one day to seminars taught either on the university campus or at a site in a partner school district. In the second semester, they work with mentor teachers at their original school assignment five days a week. Formal course work during this semester is taught in full-day seminars every other week. When professors discuss specific techniques with students in seminars, the elementary or secondary school campus provides a

real-life setting where the techniques are modeled by mentor teachers, then practiced by the university students.

Because the collaborative involves many small school districts, students participate in "cluster seminars," meeting at different locations throughout the semester. Each university student is part of an Instructional Leadership Team whose other members are two mentor teachers selected from different grade levels and a university professor (or liaison). These teams support preservice teachers through completion of the program as they move from the role of observer to that of primary classroom teacher.

Some partner schools do not have space for seminars and university classes. In these cases, office space is provided for professors, and students travel to another PDS for seminars. The site in the Dallas area is different from all the others, for it is housed in a center constructed as a gathering place for the prospective teachers assigned to the urban area. The range of PDSs for this university is great, some being in small rural communities and some in cities. Prospective teachers have their choice of schools in predominantly African-American or Hispanic neighborhoods and schools in various socioeconomic settings.

Technology installations are critical to the success of this program. Each PDS has basic computer equipment and connectivity to support telecommunication from distant sites and local use by professors, preservice teachers, teachers, and students. For example, prospective teachers transmit draft lesson plans by E-mail to their university professor and their mentor teacher for comments and suggestions. Technology has become more complex and effective as it has expanded from computers in a laboratory to CD-ROMs, Internet connections, and finally distance-learning laboratories.

"Professors conduct their courses as seminars at selected PDSs. One such site is a full-service elementary school, in which community social service agencies, a community health clinic, and after-school adult classes are integrated into the program."

A Program with Special Schools as Optional Field Sites

At the third university, the professional education component is a yearlong program that takes place largely in schools. Each student is a member of an Instructional Leadership Team composed of the student's mentor teacher, another mentor, a university professor, a first-semester prospective teacher, and a second-semester prospective teacher. Professors conduct their courses as seminars at selected PDSs. One such site is a full-service elementary school, in which community social service agencies, a community health clinic, and after-school adult classes are integrated into the program. Prospective teachers may select such a specialized site for their preparation. Magnet schools for the gifted and talented, the performing arts, and science provide other specialized sites for prospective teachers.

> ***"When students finish their year in the field and successfully pass ExCET, they enter teaching with more skills and greater confidence than former students in traditional programs because of their extended and expanded experiences in the field."***

When students finish their year in the field and successfully pass ExCET, they enter teaching with more skills and greater confidence than former students in traditional programs because of their extended and expanded experiences in the field. The contributions of the mentor teacher and the professor, working directly with students in the field, are major factors in this enhanced preparation.

Staff development is critical to program restructuring and involves both university and school faculty and administrators. The focus of staff development in this collaborative has been on several priorities of the partnership—collaboration strategies, strategies for basing educator preparation in the field, technology, diversity, and mentor training—as well as on topics to meet needs at each site, such as special training for work in the full-service elementary school.

A valued product of the program has been the adoption of innovative teaching strategies by mentor teachers in the field. For example, CPDT partners are part of the statewide curriculum revision for PreK–12 schools, and they relate in various ways to four new curriculum centers in the state (in social studies, reading, mathematics, and science). These centers offer CPDTs opportunities to bring teachers and professors together to align local school curriculum and teacher education programs with the recently adopted Texas Essential Knowledge and Skills (TEKS) framework. Other innovative practices include block scheduling and school-to-work programs in several high schools, and technology applications in all areas, especially those related to literacy.

ESSENTIALS FOR SUCCESS IN IMPLEMENTING FIELD-BASED TEACHER EDUCATION

The result of the Texas experience is some strongly held beliefs about what makes for successful field-based teacher education. The beliefs may be categorized into two groups, those applicable to successful field-based program implementation and those applicable to effective learning by the field-based college student. See Exhibit 6. Whether other components are present or not, these are critical for successful program implementation and effective learning of teacher candidates. When these requirements are not carefully attended to, the program falters and ultimately fails.

The quality of the instructional program is critical to success. For example, when university students do not have a knowledge base related to children, schools, teaching, and general education, mentor teachers soon tire of dealing with them. The mentors simply do not have time to teach the entire teacher preparation curriculum to the university students.

Exhibit 6
Essentials for Success

For Program Implementation	For Preservice Teacher Learning
Commitment on part of university and schools	Delivery of sound knowledge base
Continuing, authentic collaboration; feedback	Purposeful field experiences
Program of earlier, more intensive field-based instruction	Guided reflective practice
Well-trained mentor teachers	Ongoing mentoring by public school teachers and university professors
Credibility of university site professor as valued presence in school	

Similarly, university students in the program soon rebel when they spend their time with mentor teachers doing only repetitive tasks such as filing or grading tests. They rebel as well when they are sent into a classroom where they feel unwanted and are simply instructed to sit in a corner and observe.

Finally, even when mentors are well trained and conscientious about providing purposeful activities for university students, if the activities are not followed with guided reflection, their value is greatly diminished. It is through carefully planned reflection that students see the relationship between theory and practice. Professors whose students show impressive growth in a field-based program report that the reflective period is a regular part of the field-based courses. Some of the reflective activities are written, some are conducted in small groups, and some are carried out in large groups.

Some organizational components of field-based programs are explored in greater depth in the following sections.

Collaboration with Schools

A critical feature of the present restructured Texas models of teacher preparation has been the level of university-school involvement. Teacher training entities always have had cooperative arrangements with schools for student teaching. In Texas, organizations called Teacher Centers have promoted involvement of practitioners in decision making about educational programs since 1973. However, CPDTs have brought schools and universities together with more intensive collaboration than ever before as they work to design new programs and implement restructured programs.

Generally, leaders in schools of education have initiated the collaboratives that have resulted in CPDTs. Collaboratives have usually

Exhibit 7
Criteria for Selection of Schools to Serve as Field Sites

- The school is willing to become a professional development school.
- The school population is diverse.
- The school has needs that the collaborative might address—for example, low performance or high dropout rates.
- The school administration and teachers are interested in establishing a deeper relationship with the university.
- The school already has a successful relationship with the university through student teaching or another program.

begun with university and school personnel discussing ways to prepare more effective teachers and to improve school program. Initial collaboration has led to more extensive partnerships.

As teacher education programs have relied more heavily on field-based preparation, the criteria for a school's membership in a collaborative have become more critical. For a list of the most important criteria, see Exhibit 7.

The following strategies are among those that have been most effective in creating collaboratives:

- Identifying issues of concern and bringing together all interested parties to find solutions for problems.
- Holding initial meetings of small groups to explore the idea of (1) forming a collaborative to prepare more effective teachers, (2) involving practitioners in the preparation of teachers, (3) combining resources to meet staff development needs, and (4) placing prospective teachers in schools to assist in increasing PreK–12 student achievement.
- Collaborating on a level playing field—that is, respectfully valuing each individual and institution in the collaborative. This commitment has resulted in behaviors such as scheduling meetings at times when public school teachers can attend, using first names (no titles) for everyone involved in a deliberation, respecting the expertise of each partner, and using group-facilitation methods that assure each person an opportunity for an equal level of input.
- Establishing many vehicles for communication among partners: newsletters, E-mail, World Wide Web pages, flyers, brochures, faxes, and regular meetings of various groups—for example, mentor teachers, site professors, field-based professors,

the CPDT board, and action teams for different aspects of the work such as technology, staff development, and recruitment.
- Identifying aspirations of persons and institutions involved in the collaborative and mediating relevant rewards, satisfying experiences, and recognition.
- Having available space in a school that can be committed to the program.

Options and Responsibilities for Classroom Space in the Field

Texas universities and schools have been creative in finding space for field-based programs. At first, many school leaders said that the idea of having a university classroom and the accompanying program sounded good but they simply did not have space to commit to it. However, after working together to consider the possibilities, school and university personnel have identified an amazing number of options for space.

In the optimum scenario, the university classroom is a regular classroom in a PDS made available for teacher education. This option is often available only if (1) a building is not fully occupied, (2) a new school is being built and the decision to be a PDS is made before construction begins, (3) a new or expanded school has space for which it has no plans, or (4) a mobile classroom is added for the purpose of educating teachers.

Another option is the establishment on school property of a new facility dedicated to the university class. In some cases, universities have built modular classrooms adjoining public schools. Proposals have been written to seek private funding for such classrooms.

For most collaboratives, however, space for the university classroom has been carved out of already crowded facilities. Some spaces currently being used include the following:

1. A dedicated space partitioned off from the faculty workroom
2. A dedicated space partitioned off from a home economics clothing laboratory that was no longer needed
3. A space used by a university class when it is not scheduled for a public school class
4. A section of the school cafeteria (with an office for the professor in the library complex)
5. A portable building not currently being used by the school
6. Classrooms used for university classes during after-school hours

"In the optimum scenario, the university classroom is a regular classroom in a PDS made available for teacher education . . . Another option is the establishment on school property of a new facility dedicated to the university class."

University classrooms not only provide a place for teaching and learning but promote collaboration. Although their primary use is for

> ***"Each of the CPDTs operates with bylaws that guide the program but do not conflict with either university policy or public school regulations."***

university classes and the work of university students, they also are available to teachers and administrators. Conferences, staff development activities, small-group technology classes, and committee meetings may be held in them when they are not otherwise in use.

Responsibility for the classroom is shared by the university and the school. For example, the university is typically responsible for all the furnishings and the equipment in the classroom, and the school takes responsibility for providing utilities, custodial care, and upkeep.

Ownership of the classroom and the furnishings is an issue that the Texas Education Agency asked CPDTs to address. The following guidelines resulted from discussions and negotiations: (1) As long as the CPDT is in existence, the collaborative maintains ownership. (2) If the CPDT is dissolved, permanent installations such as classroom facilities become the property of the school district, and small equipment such as copiers and computers goes to the university. (3) The most appropriate time to negotiate ownership of equipment and furnishings is at the beginning of the program.

Program Leadership, Organization, and Governance

The organization of the field-based site and its program varies from CPDT to CPDT and from PDS to PDS. However, certain essentials are present in each of the successful Texas sites. One is shared governance; for example, a member of the university faculty serves on the school advisory body, and members of the school faculty and/or administration serve on the CPDT board. Another is people taking certain roles, in some cases a variety of roles: university professors assigned to teach at the site, a site coordinator (who also may be a site professor), a school liaison (who may be the principal or a mentor teacher), mentor teachers, and university students.

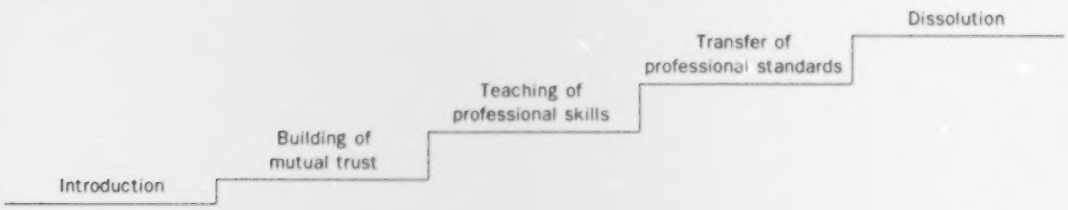
Each of the CPDTs operates with bylaws that guide the program but do not conflict with either university policy or public school regulations. Once the program been approved by the State Board for Educator Certification and fully implemented, members of the collaborative assume various responsibilities for its continuing operation.

Roles of Major Participants

School Principals

A comprehensive evaluation of five years' experience with field-based teacher preparation (Macy Research Associates, 1996) found that committed school principals are critical to the success of field-based programs. Principals are involved in PDSs at various levels of intensity and in various ways. However, most of them do the following:

Exhibit 8
Life Cycle of Mentor-Protégé Relationships



Note. Adapted from "Synthesis of Research on Mentoring Beginning Teachers" (pp. 41–42), by W. Gray & M. Gray, 1985, *Educational Leadership, 43*(3), 37–43.

- Engage teachers in planning for their school to become a PDS
- Provide staff development for teachers about the PDS model
- Welcome field-based professors as integral members of the total faculty
- Assist in placing preservice teachers in field experiences
- Participate in orienting preservice teachers to field experiences
- Teach occasional professional development classes
- Include field-based professors in campus management teams, local staff development, and other school activities
- Engage field-based professors in appropriate projects with teachers
- Take advantage of field-based professors' expertise for school improvement

Mentor Teachers

"Mentor teachers" are outstanding classroom teachers who not only teach children and youth but also act as school-based teacher educators. Mentors establish a personal relationship with preservice teachers for the purpose of professional instruction and guidance. For public school teachers who are excellent instructors of children and youth, staff development is an important part of their responsibilities. Mentors typically follow the Gray and Gray (1985) model, which describes a good mentor-protégé relationship as one that grows from voluntary interaction founded on mutual affinity and respect. For an illustration of the life cycle of a successful relationship, see Exhibit 8.

The relationship between a protégé and a mentor typically begins forming when they are first introduced. Some universities have special

> ***"The relationship between a protégé and a mentor typically begins forming when they are first introduced . . . Building of mutual trust occurs as each demonstrates his or her skills and knowledge, as the mentor conveys ideas that are effective, and as the two share parts of their personal lives."***

receptions to which protégés and mentors are invited, with additional time afterward to get acquainted. Building of mutual trust occurs as each demonstrates his or her skills and knowledge, as the mentor conveys ideas that are effective, and as the two share parts of their personal lives. The relationship tends to grow stronger as the protégé learns to trust the mentor's advice and as the protégé demonstrates teaching competence using (and sometimes extending) that advice.

Wasden (1990) explains the mentor-protégé relationship through a description of a mentor:

> The mentor is a master at providing opportunities for the growth of others, by identifying situations and events which contribute knowledge and experience to the life of the steward [protégé]. Opportunities are not happenstance; they must be thoughtfully designed and organized into logical sequence. Sometimes hazards are attached to opportunity. The mentor takes great pains to help the steward recognize and negotiate dangerous situations.

Mentors for field-based programs are chosen in a variety of ways. The criteria typically considered are similar to those proposed by Head, Reiman, and Thies-Sprinthall (1992):

- Empathy
- Ability to acknowledge the beginning teacher's accomplishments
- Reflection on and openness about their own teaching
- Ability to interpret teaching and learning events in ways that beginning teachers can understand
- Ability to balance their own teaching tasks and responsibilities with the mentor role

The following list illustrates how the board of the CPDT at Stephen F. Austin State University (1992) interpreted these criteria for selection of mentor teachers:

- A strong desire to work with preservice teachers
- Three years' successful teaching experience
- A history of commitment to professional growth
- Evidence of strong, positive classroom management skills
- Effective communication and interpersonal skills
- A strong knowledge base for the appropriate teaching field
- Evidence of being flexible to meet students' needs

Exhibit 9
Categories of Support Appropriate for Beginning Teachers

Systems information	Giving information related to procedures, guidelines, and expectations of the school district
Mustering of resources	Collecting, disseminating, or locating materials or other resources
Instructional information	Giving information about teaching strategies or the instructional process
Emotional support	Offering support by listening empathically and sharing experiences
Advice on student management	Giving guidance and ideas related to discipline and managing students
Advice on scheduling and planning	Offering information about organizing and planning the school day
Help with the classroom environment	Helping arrange, organize, or analyze the physical setting of the classroom
Demonstration teaching	Teaching while the new teacher observes (preceded by a conference to identify the focus of the observation and followed by a conference to analyze the observed teaching episode)
Coaching	Critiquing and providing feedback on the beginning teacher's performance
Advice on working with parents	Giving help or ideas related to conferencing or working with parents

Note. From "Developing Support Programs for Beginning Teachers" (p. 31), by S. J. Odell, 1989, in L. Huling-Austin, S. J. Odell, P. Ishler, R. S. Kay, & R. A. Edelfelt, *Assisting the Beginning Teacher*, Reston, VA: Association of Teacher Educators. © 1989 by Association of Teacher Educators. Reprinted with permission.

Mentors provide support and assistance in a wide variety of areas. Odell (1989) has identified 10 categories of support that mentors provide to novice teachers; see Exhibit 9.

Exhibit 9 addresses the "what" of mentoring. The "how" of mentoring is equally important. Huling-Austin (1990) speaks to this issue by encouraging mentors typically to use a more interactive, less directive approach to facilitate reflection and problem-solving by the beginning teacher. She also discusses "mentoring style," the way in which a mentor conceptualizes his or her role; see Exhibit 10. Mentoring style can vary greatly. The "responder" sees the mentor's role as one of answering the questions that originate with the beginner. The "colleague" accepts responsibility for providing ongoing support throughout the year. The "initiator" does what both the responder and the colleague do but also believes that it is the responsibility of the mentor to facilitate the professional growth of the beginner to the greatest degree possible.

Mentor teachers for preservice candidates are not typically compensated monetarily but receive other types of incentives and recognition. Several CPDTs celebrate with a dinner honoring them. Most provide some sort of recognition such as plaques or small tokens of appreciation. Some employ a select group of mentors during the summer to teach classes or develop curriculum. A few school districts pay mentors a stipend. Regardless of compensation, mentor teachers are

Exhibit 10
Styles of Mentoring the Beginning Teacher

Style and Description	Requirements	Outcomes	Limitations
Responder: Encourages BT to ask for help and provides assistance when requested in areas of concern.	MT who is willing to help; BT who trusts the MT enough to ask for help.	BT gets help with major areas of concern.	Many of the day-to-day problems not dealt with constructively.
Colleague: Frequently initiates informal visits with BT and, when BT expresses a concern or problem, provides assistance related to the area of concern.	Additional time commitment on part of MT.	Stronger personal relationship develops between BT and MT; BT gets substantial help with identified areas of concern.	Extent of professional growth determined by BT, who has limited experience and view of effective teaching.
Initiator: Accepts a responsibility to facilitate the professional growth of the BT to greatest degree possible. In addition to providing assistance when requested, regularly makes suggestions to BT to promote growth.	Substantial teaching expertise on part of MT; strong rapport between MT and BT; MT must have opportunity to observe teaching of BT.	BT gets benefit of the expertise of the MT; MT experiences professional growth as well as BT.	Extent of professional growth limited only by the potential of BT and the mentoring expertise of MT.

Note. MT = Mentor Teacher; BT = Beginning Teacher. From "Mentoring Is Squishy Business" (p. 45), by L. Huling-Austin, 1990, in T. M. Bey & C. T. Holmes (Eds.), *Mentoring: Developing Successful New Teachers*, Reston, VA: Association of Teacher Educators. © 1990 by Association of Teacher Educators. Reprinted with permission.

recognized by preservice teachers and universities as vital to program success.

Preservice Teachers

Various terms are used in Texas to identify preservice teachers. Some universities use the term "student teachers" for those in the last semester of the field experience; others call them "residents." The term "interns" is used in different programs in four ways: for those in field experiences that precede student teaching, for those in student teaching, for those in field experiences following student teaching, and for those in any phase of field experience.

Regardless of the identifying terms, the preservice teacher's role is twofold: student and protégé. As a student, the preservice teacher attends pedagogy courses taught in public schools and serves for ever-increasing periods in actual classrooms working with mentor teachers. The courses delivered in the field may be specific to a subject or integrated. Methods of teaching by professors vary as much in the field-based setting as in a campus setting. However, the setting influences

both the design and the delivery of the courses. One evaluator said,

> No longer will educators hear the indictment "dull, boring, irrelevant education courses," because professors cannot possibly escape the influence of the public school environment; they cannot help but change their courses, when the courses are taught on site within a public school setting! (Morris, Miller, & Setliff, 1994, p. 4)

In the role of protégé, the preservice teacher spends time with a mentor teacher. During early field experiences, activities vary according to the design of the collaborative delivering the program. However, they are generally characterized as "tasks of a real teacher." This is a change from the practice in the traditional program of using observation as the first field experience. In other words, the role of the preservice teacher is not solely one of observing but also one of assisting the teacher. Some have described the first field activities as similar to those performed by a teacher's aide. As the experience progresses, the preservice teacher gradually assumes responsibilities for teaching full-time under the direction of the mentor teacher.

"At every university the assurance that site professors have equal opportunities for tenure, merit, and promotion is an important issue."

University Professors

University professors who teach in the field are called "site professors." Some universities provide a stipend for field assignments. Most, however, only reimburse travel costs. At every university the assurance that site professors have equal opportunities for tenure, merit, and promotion is an important issue.

In many cases a PDS may have several field-based professors, with one serving as site coordinator. The site coordinator works with the principal or the school liaison to place preservice teachers and in general to administer the program at that site.

University administrators report that faculty respond to the opportunity to teach in the field in a variety of ways. Those who like the idea are usually those who participated in designing the restructured program or accepted employment with an understanding that part of their assignment would be in the field. A few who have not wanted to adapt to the new delivery system have opted for early retirement. For site professors' perceptions of advantages and disadvantages of working in the field, see Exhibit 11.

Surveys of Texas field-based professors show that few have assignments exclusively in the field. Rather, most teach in the field two days a week and are on the university campus three days a week, or

Exhibit 11
Advantages and Disadvantages of Service as a Field-Based Professor

Advantages	Disadvantages
Increased feelings of contributions to improvement of school programming	Feelings of isolation from university environment
Appreciation from public school administrators and teachers	Less autonomy in use of time
Being in real world of public school education	Limited time to pursue traditional measures of professorial success
Better grounding of theory in practice	Inconvenience of working from two professional offices
Improved instruction	
Rich database available for action research	

Note. From *Advantages and Disadvantages of Serving as a Site Professor,* by P. Hallman, 1997, unpublished research paper, Stephen F. Austin State University, Nacogdoches, TX. © 1997 by P. Hallman. Reprinted with permission.

vice versa. In all cases reported, field-based professors return to the university campus for at least one day per week, usually Fridays. For a summary of a professor's typical day in the field, see Exhibit 12.

In a schedule such as that in Exhibit 12, the site professor does not typically observe all preservice teachers during their early field experiences. Rather, he or she shares with mentors the responsibility of evaluating preservice teachers in the classroom. This system reflects the nature of the early field experience duties, which seldom include teaching an entire class. When the preservice teacher reaches the full-day, student teaching component of the field experiences, a site professor becomes involved in full-class-period observations, conferences, and assessments. In some centers, evaluation is a joint responsibility of the professor and the mentor, whereas in at least two centers, the mentor provides only formative evaluation to the preservice teacher so as not to violate the mentor-protégé relationship.

In the Texas model, field-based professors are "value-added" for PDSs. As they share their expertise with teachers, they perform a worthy service in university-school collaboration. Professors report sharing their expertise in the following ways at PDSs:

- Serving on site-based management teams
- Teaching computer skills and use of the Internet and other technologies to individual teachers and to groups of them

Exhibit 12
A Professor's Typical Day in the Field

8:00 a.m.	Arrives at public school approximately as regular teachers arrive; has planning period
9:00 a.m.	Teaches field-based course in integrated curriculum
10:30 a.m.	Observes students from field-based course as they test ideas in classrooms
11:00 a.m.	Observes student teacher; holds conference before and after observation
Noon	Eats in cafeteria or faculty lounge with teachers
1:00 p.m.	Teaches use of Internet to small group of teachers during their conference period
2:00 p.m.	Visits with mentor teacher about progress of protégé
3:00 p.m.	Attends site-based management meeting
4:00 p.m.	Leaves school campus to return home or to stop by university office

- Assisting in development and implementation of curriculum changes
- Providing staff development for teachers
- Participating in class exchanges by teaching public school classes while public school teachers teach university classes

Professors assigned to work with preservice teachers in the final semester of the program most often spend a full day of supervision in the field. They make regular supervisory visits to each student, which include classroom observations and pre- and post-observation conferences. Often these are three-way conferences involving the mentor teacher, the student teacher, and the university professor. Some CPDTs also involve counselors, who focus on affective dimensions of the classroom. In most programs, professors also hold cluster seminars weekly or biweekly, choosing seminar topics like the following to respond to student teachers' needs:

- Reviewing classroom management strategies
- Developing support networks
- Sharing innovative teaching ideas
- Addressing challenging instructional problems
- Preparing résumés and pursuing other job-hunting strategies
- Preparing for ExCET

Technology in Field-Based Education

In funding the first eight CPDTs, the Texas Legislature provided generous support for technology. For example, the collaboratives that received grants of approximately $1 million had budgeted as much as 50

> *"The most frequently identified needs are for (1) mentor training, (2) instruction in technology, (3) information on best instructional practices, (4) ways to strengthen literacy programs, (5) ways to use reflective thinking in classrooms, and (6) training in effective group processes."*

percent of their funds for technology. They used the funds in a variety of ways, but the focus was fourfold: (1) computers and related hardware and software for field-based university classrooms, (2) hardware and software for mentor teachers' classrooms, (3) distance-learning laboratories, and (4) training of prospective teachers, practicing teachers, and professors. In those early years, a typical university classroom at a PDS had a bank of computers, an overhead projector, a television, a videocassette recorder, a video camera, a fax machine, a telephone with an answering machine, and a copier.

In recent years, as money has become more scarce, classrooms established in new PDSs have had less equipment. However, there has been sufficient funding for technology within the school district to make available to site professors, mentor teachers, and university students the opportunities that were present at sites funded earlier. Macy Research Associates (1996) found that CPDTs have contributed to a dramatic increase in the use of technology in the schools.

Staff Development in Field-Based Programs

Staff development is a major component of all the CPDTs. The CPDTs recognize that the teacher education program can be no stronger than the vision and the expertise of the designers and the instructors who are part of it. All partners in field-based teacher preparation are involved in various forms of staff development designed to meet local needs. Directors of the Texas CPDTs (1996) report that the most frequently identified needs are for (1) mentor training, (2) instruction in technology, (3) information on best instructional practices, (4) ways to strengthen literacy programs, (5) ways to use reflective thinking in classrooms, and (6) training in effective group processes.

An annual summer institute attracts more than 300 school and university professionals, who explore new and vital aspects of teacher education restructuring. Each CPDT sponsors extensive professional development for school and university faculty, including seminars after school and on Saturdays, workshops in computer laboratories and media centers, visitation to other sites, and attendance at relevant state and national conferences. For the range of staff development provided in one CPDT consortium, see Exhibit 13.

BARRIERS TO FIELD-BASED EDUCATION

Research on the Texas initiative has found that many barriers, some serious and some superficial, must be overcome for successful programming. For a list of the most troublesome problems encountered by the first eight Texas CPDTs, and the bridges that they used to overcome the problems, see Exhibit 14 (page 26).

Exhibit 13
Partial List of Professional Development Workshops

Focus	Workshops
Diversity	Children with Special Needs, Strategies That Free All Learners to Fly, Cultural Diversity, Strategies for Supporting the Success of Urban Learners, Strategies for Working with Youth with Limited Language Skills
Technology	Software Preview, Use of New Technologies, Computers in the Classroom, TENET Quickstart, English Language Arts, Math/Science K–5 Multimedia in the Classroom, Learning Styles and Technology, Kid Pix, Electronic Gradebook, Scanners, Video Cameras, Developing Your Own Web Page
Mentoring	Peer Coaching, Mentor Teacher Training, Mentoring/Supervising, Portfolio Assessment, Use of Portfolios, Behavior Management, Self-Esteem, Behavior Management for Difficult Students, Power of Affirmation
Best Practices	Multiple Intelligences, Use of Math Manipulatives, Enhancing Mathematics with Children's Literature, Reflective Inquiry, Educational Reform and the Teaching of Thinking, Creative Teaching Techniques, Creative Training Techniques, Cultural Connections in Math, Process Skills in Science, Using Diagnostic Instruments in Math

Macy Research Associates (1996) found several barriers or concerns among the CPDTs: (1) totally institutionalizing the restructured programs, (2) perfecting the distance-learning part of the programs' technology component, (3) establishing more business partnerships in the programs, and (4) raising ExCET passing rates for African-American students.

ASSESSMENT IN FIELD-BASED PROGRAMS

Assessment of the Texas initiative to restructure teacher preparation according to a field-based model has taken place at appropriate levels. At the state level, the Texas Education Agency (Ajuria, 1993–94) and an independent contractor (Macy Research Associates, 1996) have completed studies. The independent contractor's study was a comprehensive evaluation of the initiative from 1992 through 1996. For a summary of the findings, see Exhibit 15 (page 27).

Within the state, research studies have explored various aspects of the initiative. For example, Bowen (1996) studied principals' roles in PDSs. The results of her study confirm the critical value of the principal in a program that bases teacher preparation in the field. Morris, Miller, and Setliff (1994) also conducted an assessment of the initiative from the principal's perspective. They concluded that relating school reform, PDSs, and teacher preparation strengthened all three. Principals surveyed in early research conducted at Stephen F. Austin State University (Board of S. F. Austin CPDT, 1992) showed a preference for students trained in a field-based teacher preparation program because their confidence level was higher than that of traditional first-year teachers.

Exhibit 14
Barriers to Field-Based Education

Barriers	Bridges
Lack of collaborative skills	Training in team work, site-based management, and strategic planning
Reluctance of arts and sciences colleges to approve additional hours of education credit	Small-group collaborative sessions with individual deans, advisers from deans' offices, admissions officers and counselors, and arts and sciences subcommittee of teacher education council
	Visible support of restructuring program by university president and vice-president for academic affairs
Faculty reluctance to restructure	Strong support to restructure from dean, chairs, and other educational leaders
Funding for increased costs	Achievement of field-based course funding
	Institutionalization of distance-learning laboratories
	Sharing of costs with public school and regional education service center partners
	External funding
Inadequate communication	Increased use of technology for communication
	Initiation of CPDT newsletters
	More small-group collaboration
	Dean's brown bag luncheons
	School board workshops focused on new programming
Limited technology skills	Required instructional courses for preservice teachers
	Addition of full-time technologist to CPDT staff
	Ongoing technology short courses for university professors and teachers
	Participation in technology conferences
	Installation of more technology labs
Time required for implementation	Establishment of action teams to carry out work of each component of CPDT
	Use of ad hoc committees for specific challenges
	Employment of CPDT staff for critical roles
	Assignment of CPDT director to dean's staff
	Reassigned time for program development

Note. From "Bridges and Barriers," by P. Hallman & S. Rulfs, 1995, *Texas Teacher Education Forum*, 20.

Research by the Houston Consortium of CPDTs (1997) found significant positive changes in student achievement at each of the PDSs in the consortium. PreK–12 students' scores on standardized tests of reading and mathematics achievement increased in schools that were in their first two years as PDSs. Forty-three percent of teachers in PDSs reported that they taught differently as a result of being in a PDS and that the teaching styles of prospective teachers in the field-based program were more student oriented and effective than those of a comparison group of traditionally prepared teachers.

All centers conduct regular assessments of the processes, the program, and the outcomes of their restructuring efforts. They report quarterly on activities and progress to the State Board for Educator Certification.

Exhibit 15
Summary Results of the Comprehensive Evaluation of CPDTs

- Restructuring of teacher preparation as a collaborative, field-based undertaking promoted an intensive collaborative effort between university and school personnel and resulted in a dramatic transition from course work based on the university campus to course work based in the schools (a 184% increase in field-based hours for the elementary education level and a 142% increase for the secondary education level). Collaborative planning and implementation included more than 600 formal planning/management groups, and almost two-thirds (64%) of all personnel involved were school district personnel.
- One hundred percent of school principals reported that CPDT graduates hired as first-year teachers had entered into the school environment more successfully than typical first-year teachers. Ninety percent reported that CPDT graduates were more confident, provided better instruction, and compared favorably with more experienced teachers. Seventy-nine percent reported that CPDT graduates had better discipline/classroom management than typical first-year teachers.
- PDS mentor teachers reported benefits such as input into university course instruction, input into evaluation of preservice teachers, and more collaboration between universities and school district personnel.
- Classroom teachers (in some cases, preservice teachers as well) presented staff development sessions and training sessions at regional and national conferences. Numerous teachers pursued professional advancement including advanced degrees and administrator certification, and selected teachers attained management/leadership positions.

Note. From *Centers for Professional Development and Technology state-wide evaluation study: Final summary report*, by Macy Research Associates, 1996, Wills Point, TX: Author.

SUMMARY

Five years ago many Texas institutions of higher education made a commitment to restructure teacher preparation in the state. Each year additional institutions preparing educators join the movement. Today the majority of Texas institutions preparing educators have based most of their programs in the field. The present commissioner of education, Mike Moses, and the present executive director of the State Board for Educator Certification, Mark Littleton, provide leadership and support for restructuring. So far, millions of dollars and millions of hours have been invested in changing how teachers in Texas are prepared. This is only the beginning of a dramatic movement to restructure teacher preparation in Texas and thus to improve the education of all children.

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